

GENERIC NAME: MIDAZOLAM HYDROCHLORIDE

BRAND NAME: Versed

CLASS: Central nervous system depressant, benzodiazepine

Mechanism of Action:

CNS effects are mediated through the inhibitory neurotransmitter gamma-aminobutyric acid (GABA).

Acts at the limbic, thalamic, and hypothalamic levels of the CNS, producing anxiolytic, sedative, hypnotic, and anticonvulsant effects.

Capable of producing all levels of CNS depression, from mild sedation to coma.

Indications and Field Use:

Anti-convulsant

Sedation

Management of acute agitation/treat cause first

Induction for intubation

Contraindications:

Hypersensitivity to midazolam

Relative contraindication in: Myasthenia gravis or other neuromuscular disorders; acute alcohol intoxication; severe, chronic obstructive pulmonary disease; and acute pulmonary insufficiency

Adverse Reactions:

CV: Hypotension (especially in patients premedicated with narcotic); cardiac arrest; irregular or fast heartbeat

Respiratory: Apnea; respiratory depression, respiratory arrest; hyperventilation; wheezing or difficulty in breathing; hiccups; coughing

CNS: Emergence delirium; muscle tremor; uncontrolled or jerky movements of body; unusual excitement, irritability, or restlessness; dizziness, light-headedness, or feeling faint; prolonged drowsiness; headache

GI: nausea and/or vomiting

GD-047-PHS-EMS: Drug Profile for Midazolam Hydrochloride

Notes on Administration:

Midazolam administered intravenously has been associated with respiratory depression and respiratory arrest, especially when used concomitantly with opioid analgesics for conscious sedation or when rapidly administered. Midazolam may cause phlebitis. May need to adjust midazolam dose down for patients on erythromycin.

Incompatibilities/Drug Interactions:

Midazolam may potentiate the action of other CNS depressants, including opiate agonists or other analgesics, barbiturates or other sedatives, anesthetics, or alcohol. Erythromycin may double the half-life of midazolam.

Adult Dosage:

Patients 14 to 60 years of age: 2 to 5 mg IM
1 to 5 mg IV, titrate to effect, administer slowly in small increments of no more than 2.5 mg over at least 2 minutes.

Patients over 60 years of age: 1 to 3 mg IM
1 to 3.5 mg IV, titrate to effect, administer slowly in small increments of no more than 1.5 mg over at least 2 minutes.

Total dose: Should not exceed 20 mg

For emergency intubation: 0.1 mg/kg up to 0.3 mg/kg with dosage limit of 20 mg.

Seizures: 0.2 mg/kg IM for status seizures if no IV access

Pediatric Dosage:

Pediatric patients: 0.05 to 0.1 mg/kg slow IV push
0.2 mg/kg IM for status seizures if no IV access

Routes of Administration:

For IM administration, inject deep into large muscle mass.
For IV bolus and infusion, administer slowly in small increments over at least 2 minutes and allow 2 more minutes between doses to evaluate effect.

Onset of Action:

IM - 15 minutes, IV - immediate

GD-047-PHS-EMS: Drug Profile for Midazolam Hydrochloride

Peak Effects:

IM - 15 to 60 minutes, IV - 3 to 5 minutes

Duration of Action:

2 to 6 hours

Dosage Forms/Packaging:

1 mg midazolam/1 mL: 5 mL vials (5 mg)

Arizona Drug Box Supply Range:

Paramedic:	optional, 2-4 vials of 5 mg/5 mL
Intermediate:	optional, 2-4 vials of 5 mg/5mL

Special Notes:

- > Flumazenil is the accepted antagonist for midazolam
- > Midazolam is an optional drug